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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
10/038,345	12/19/2001	Takayuki Araki	Q67743	1805

7590 05/19/2003

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EXAMINER
TRAN, THAO T

ART UNIT	PAPER NUMBER
1711	2

DATE MAILED: 05/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.	Applicant(s)
10/018 345	ARAKI ET AL
Examiner	**Art Unit**
Thao T Tran	1711

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,6,7
4) ☐ Interview Summary (PTO-413) Paper No(s) _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng et al. (US Pat. 4,935,467) or Cheng et al. (EP 0524700).

Cheng teaches a fluorine-containing material (polymeric blend), comprising (a) a fluorine-containing multi-segment polymer (thermoplastic elastomer) having an elastomeric fluorine-containing polymer chain segment A and a non-elastomeric fluorine-containing polymer chain segment B; and (b) a fluorine-containing resin (thermoplastic polymer) (see abstract; claims 1-2).

In regards to claims 1-3, Cheng teaches segment A comprising 90% by mole of a perhaloolefin unit (vinylidene fluoride); component (b) having melting points of 220°C and 270°C; and the amount of component (b) is about 1-99% by weight, which translates into the weight ratio of (a)/(b) being 1/99 to 99/1 (see abstract; col. 2, ln. 58-66; claims 1-3).

In regards to claims 7-8 and 13, Cheng teaches segment A comprising 15-75 % of perfluoro(alkyl vinyl ether) and 0-85% of tetrafluoroethylene, and segment B comprising 15-50% of tetrafluoroethylene and 0-35% of hexafluoropropylene (see claims 1-2, 8).

In regards to claims 9-10 and 14, Cheng teaches component (b) being a copolymer of ethylene, tetrafluoroethylene, and hexafluoropropylene (see claims 1 and 5).

In regards to claim 11, Cheng teaches segment B being about 5-95% weight based on the whole thermoplastic elastomer (a) (see claims 1-2).

In regards to claims 4, 5-6, and 12, Cheng does not teach a specific glass transition temperature for segment B. However, since Cheng teaches the same composition of segment B, as presently claimed, Cheng's composition would inherently have the same properties, such as glass transition temperature, as in the presently claimed invention.

3. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueta et al. (US Pat. 4,487,882).

Ueta teaches a fluoroelastomer composition, comprising a thermoplastic fluoroelastomer (a) and a fluoroelastomer (b); wherein the thermoplastic fluoroelastomer comprises a fluoroelastomeric segment A and a fluoro-nonelastomeric segment B; and the ratio of (a)/(b) 20/80 to 95/5 by weight (see abstract, col. 1, ln. 26-41; claims 1 and 3).

Ueta further teaches segment A comprising tetrafluoroethylene, hexafluoropropylene, vinylidene fluoride, and/or perfluoro(alkyl vinyl ether) (see col. 1, ln. 49-60) and segment B comprising tetrafluoroethylene and perfluoro(alkyl vinyl ether); whereas the weight ratio of segment A to segment B being 40/60 to 95/5 (see col. 1, ln. 61 to col. 2, ln. 2).

In regards to claims 2, 4-6, and 12, the reference does not teach a specific glass transition temperature of component (a) or of segment B. However, since Ueta teaches the same composition of component (a) and segment B, as presently claimed, Ueta's compositions would

inherently have the same properties, such as glass transition temperature, as in the presently claimed invention.

4 Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (US Pat. 5,891,538)

Yamamoto teaches a thermoplastic resin composition, comprising 15-90% by weight of a fluororesin and 1-80% by weight of a fluororubber, wherein the fluororubber comprises an elastomeric segment A and a non-elastomeric segment B, and the fluororesin has a melting point at 250°C (see abstract; claims 1, 3, 5).

Yamamoto further teaches that segment A comprises 95% by mole of a perhaloolefin (tetrafluoroethylene) (see col. 5, ln. 66 to col. 6, ln. 1); the weight ratio of segment B to segment A is from 5/95 to 60/40 (see col. 6, ln. 40-41); segment A comprises tetrafluoroethylene, perfluoro(alkyl vinyl ether), and hexafluoropropylene, whereas segment B comprises tetrafluoroethylene and perfluoro(alkyl vinyl ether) (see col. 6, ln. 49-67); and the fluororesin comprises tetrafluoroethylene, hexafluoropropylene, polyvinylidene fluoride (see col. 3, ln. 56-65).

In regards to claims 2, 4-6, and 12, the reference does not teach a specific glass transition temperature of component (a) or of segment B. However, since Yamamoto teaches the same composition of component (a) and segment B, as presently claimed, Yamamoto's compositions would inherently have the same properties, such as glass transition temperature, as in the presently claimed invention.

Contact Information

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

tt
May 6, 2003

Supervisory Patent Examiner
Technology Center 1700